

In the claims:

Please cancel claims 2 – 34, without prejudice.

Please add the following new claims:

2 ~~25~~. A method for transmitting data from a first antenna, said method including the steps of:

providing a carrier signal;

imposing a phase modulation of less than 90° on the carrier signal in accordance with a data signal to create a modulated signal having a carrier frequency and sidebands, the sidebands being substantially lower in amplitude than the carrier frequency; and

providing the modulated signal to said first antenna for transmission.

3 ~~26~~. A method according to claim ~~25~~ including the step of receiving the modulated signal with a second antenna which, in response thereto, produces a first signal which is provided to receiver means, the receiver means deriving a second signal indicative of the data signal.

4 ~~27~~. A method according to claim ~~26~~ wherein the first signal is used to power the receiver means.

5 ~~28~~. A method according to claim ~~26~~ wherein both the first and second antennas have a high Q factor.

6 ~~29~~. A method according to claim ~~25~~ including the step of deriving the modulated signal from the sum of the carrier signal and an attenuated quadrature carrier signal which is modulated with the data signal.

7 ~~40~~. A transmitter including:

a first antenna;

oscillator means for providing a carrier signal; and

mixing means for imposing a phase modulation of less than 90° on the carrier signal in accordance with a data signal to create a modulated signal, the mixing means also providing the modulated signal to the first antenna for transmission, wherein the modulated signal has a carrier frequency and sidebands, the sidebands being substantially lower in amplitude than the carrier frequency.

8 41. A transmitter according to claim 40 wherein the modulated signal is received by a second antenna which, in response thereto, produces a first signal which is provided to receiver means, the receiver means deriving a second signal indicative of the data signal.

9 42. A transmitter according to claim 41 wherein the first signal is used to power the receiver means.

10 43. A transmitter according to claim 40 wherein both the first and second antennas have a high Q factor.

11 44. A transmitter according to claim 40 wherein the modulated signal includes the sum of the carrier signal and an attenuated quadrature carrier signal which is modulated with the data signal.

12 45. A transmitter according to claim 40 wherein the antenna is a tunable coil.

13 46. An identification system including a transmitter as defined in claim 40.

14 47. A system according to claim 48 for identifying luggage.

15 48. A method for transmitting data from a first antenna, said method including the steps of:

providing a carrier signal;

imposing a phase modulation on the carrier signal in accordance with a data signal to create a modulated signal having a carrier and sidebands, the amount of phase modulation being selected such that the amplitude of the sidebands is substantially lower than that of the carrier; and

providing the modulated signal to the first antenna for transmission.

16 49. A method according to claim 48 wherein the phase modulation is selected such that the sidebands are greater than 10 dB below the carrier amplitude.

17 50. A method according to claim 49 wherein the phase modulation is selected such that the sidebands are greater than 40 dB below the carrier amplitude.

18 51. A method according to claim 50 wherein the phase modulation is selected such that the sidebands are greater than 60 dB below the carrier amplitude.

19 52. A method according to claim 48 including the step of receiving the modulated signal with a second antenna which, in response thereto, produces a first signal which is provided to receiver means, the receiver means deriving a second signal indicative of the data signal.

20 53. A method according to claim 52 wherein the first signal is used to power the receiver means.

21 54. A method according to claim 52 wherein both the first and second antennas have a high Q factor.

22 55. A method according to claims 48 including the step of deriving the modulated signal from the sum of the carrier signal and an attenuated quadrature carrier signal which is modulated with the data signal.

23 56. A transmitter including:
a first antenna;
oscillator means for providing a carrier signal; and
mixing means for imposing a phase modulation on the carrier signal in accordance with a data signal to create a modulated signal having a carrier and sidebands, the amount of phase modulation being selected such that the amplitude of the sidebands is substantially lower than that of the carrier, the mixing means also providing the modulated signal to the first antenna for transmission.

24 57. A transmitter according to claim 56 wherein the phase modulation is selected such that the sidebands are greater than 10 dB below the carrier amplitude.

25 58. A transmitter according to claim 57 wherein the phase modulation is selected such that the sidebands are greater than 40 dB below the carrier amplitude.

26 59. A transmitter according to claim 58 wherein the phase modulation is selected such that the sidebands are greater than 60 dB below the carrier amplitude.

27 60. A transmitter according to claim 59 wherein the modulated signal is received by a second antenna which, in response thereto, produces a first signal which is provided to receiver means, the receiver means deriving a second signal indicative of the data signal.

28 61. A transmitter according to claim 60 wherein the first signal is used to power the receiver means.

29 62. A transmitter according to claim 56 wherein both the first and second antennas have a high Q factor.

30 63. A transmitter according to claim 56 wherein the modulated signal includes the sum of the carrier signal and an attenuated quadrature carrier signal which is modulated with the data signal.